tional in character. Slowing of the pulse and attacks of vomiting when the headache was very severe. Right patellar reflex lost, left weak. Great variation in the symptoms from day to day. In the further course of the disease there appeared progressive diminution of sight, retinitic atrophy of the disc, double abducens paralysis, dilatation of the right pupil with slow reaction. Convulsive drawing of the face toward the right side, high degree of stiffness on attempts at movement, and pain of the cervical portion of the spinal column. Increasing stupor, slight attacks of unconsciousness, great slowing of the pulse, Cheyne Stokes respiration. Double-sided ptosis, great limitation of the movability of the eyes, deviation of the tongue to the right. Incontentia urinæ et alvæ.

Autopsy showed the ependyma of both lateral ventricles had lost its glistening appearance, and presented a grayish white and red swellings. These swellings were in the form of compact hard granulations in some places, while in other localities there was a more diffuse infiltration and a lessened consistency. Similar conditions were found in the extensions of the third and fourth ventricles, and in the aqueduct of Sylvius. Histological examination of the tumor masses found in the ventricles left the matter in doubt as to the real nature of the new growth. In some sections it resembled a glioma, in others a mixed form, glio-sarcoma. Considering the extensive and diffuse infiltration, the gradual development of the disease, the fine fibred structure of the supporting tissue, its peculiar light colored appearance, its vascularity and the retrogressive metamorphosis that was present, the author was struck with its similarity to the process that goes on in gliosis spinalis. J. C.

A Case of Glioma in the Dorsal Portion of the Pons.—Jolly. (*Archiv. f. Psych. und Nervenheilk*, vol. xxvi., part 3.) The history of the case reported is briefly as follows: Duration of disease, less than two years. First symptom, left side facial paralysis. A month later vertigo, vomiting, and trouble in swallowing which disappeared after a week and did not return for three months. At this time subjective disturbance of vision, which perhaps depended on a paralysis of the muscles for winking of the left side. Simultaneously with this conjugate eye muscle paralysis developed; weakness of the muscles of mastication on the left side, and anæsthesia in area supplied by the left trigeminus. A little later, weakness and lessened sensibility of right arm, which condition remained to the end. Later, similar disturbances in the left leg, then continuous numbness of sensibility in the right leg. The paralysis of the muscles of winking of left side was permanent till death, and toward the end a weakness of the same muscles on the right side was seen. Frequent attacks of weakness and vomiting, but no convulsions. Absence of choked discs. Diagnosis was new growth in the region of the pons, and as left facial paralysis was associated with conjugate deviation of the eyes to the right, it was considered that the tumor in its development had involved the nuclei of the facial and abducens. At the post-mortem, the cerebellum was pushed up, and under it, springing up from the bottom of the fourth ventricle, was a very large, grayish-white tumor; toward the cerebrum it was traceable to the aqueduct of Sylvius and spinalwards to the calamus scriptorius. The tumor lay substantially in left side of the bottom of the ventricle; apparently did not break through the ependyma of the ventricle, but to arch it up the raphe was pushed over to one side. The spinal end of the tumor, like a small plug, extended down and against the medial side of the left corpus restiforme. The trigeminus, as well as the facial and abducens, were somewhat flattened and transparent. The other cranial nerves, including the oculomotorius and trochlearis, seemed normal macroscopically. Microscopically it was found that the tumor had its greatest extent in the region of the origin of the facial and abducens nerves, and that it had destroyed the nuclei of those nerves not only on the side where it lay, but it penetrated to the right through the raphe and infiltrated the abducens nucleus on that side. In its cerebral and in its spinal extension it limited itself rather completely to the left side, and involved on this side the trigeminus, the motor nucleus and the greater part of the sensory nucleus of which was destroyed. The greater part of the glossopharyngeal and hypoglossus nuclei were infiltrated and nearly destroyed by the tumour. The hypoglossus nuclei, in its proximal portion, showed in parts very marked changes, and as it was followed into the cord it became more and more normal. The tumor was a pure glioma. J. C.

The Primitive Lesion of Tabes.—Nageotte. (*Societe de Biologie*, November 10, 1894.) The writer believes that there exists in tabes an intense perineuritis, which begins at that portion of the posterior roots which is situated between the ganglion and the point of entrance of the root into the sub-arachnoidian space. In the beginning this inflammation partakes of the nature of an embryonic process, while in the more advanced stages it passes in to a fibrous state. This inflammation is primitive, and leads up secondarily to degeneration of the posterior root fibres. The inflammation invades equally the anterior roots at a similar level, but the nervous tubes of these roots resist infinitely more the interstitial process than the posterior roots. Nevertheless it would be possible to invoke this lesion as a cause of the peripheral motor neuritis, at least in certain cases. The roots in the nerves in paralytic tabics do not differ from those in pure tabes in this regard. This conjunctive lesion is of the same order as those of the brain in progressive general paralysis. There exists no histological argument which prevents the admission that this embryonal lesion, afterwards sclerotic, may be syphilitic. J. C.

CLINICAL.

The Reflexes in Total Transverse Lesions of the Spinal Cord.—Gerhardt. (*Deutsche Zeitschrift für Nervenheilkunde*, Bd. 6, p. 127.) Bastian's assertion that a total transverse lesion high up in the cord abolishes the knee-jerk is well known, and has received the unqualified support of Bowlby, Thorburn, Bruns and others, although all are not satisfied with his explanation, which really comes from Hughlings Jackson, that it is the cutting off of cerebellar influence that makes the knee-jerk impossible. Gerhardt's case, which he considers as positive evidence against the view of Bastian, is a boy of seventeen, whose trouble began with a feeling of weakness in the right foot, gradually became paraparetic, in sixteen days was unable to walk, and a month later had become completely paraplegic. Sensation gradually diminished to a level above the umbilicus, but was not completely abolished until two years later. The knee-jerks were greatly exaggerated up to the fourth year of illness, when they began to diminish; by the end of the year were completely absent, and were not to be obtained up to the time of death, about five years from the onset. The superficial reflexes were retained, but they gradually altered in character, becoming very slow The autopsy revealed an angioma extending from the fifth to the eighth dorsal vertebra, which had compressed and completely destroyed the cord in this region. He explains the loss of knee jerk by referring it to the marked contractures which had developed, with supposed changes in the muscles and joints. [Such changes might possibly be an adequate cause, but it seems fully as reasonable, if not more so, to assume that this slowly-growing tumor, slowly growing as shown by the long retention of sensibility, only accomplished the complete destruction of conducting paths in the cord at the end of three or three and a half years, and that from this time the tendon reflexes were lost.]

NOTE.—Since the above was written the review of Bruns has appeared (*Neurol. Centralb.*, January 15, 1895), in which he essentially agrees with the foregoing. PATRICK (Chicago).